

ment of selective extractions, checking the activity of the fractions with physiological test methods (preferably on transparent animals); the use of microchemical methods, and through the search for pure principles, and their study, physical, chemical and physiological.

Pharmacy is challenged, as a calling, to help the medical profession in providing the perfect medicine. Pharmacy can meet this challenge through pioneering in the Biochemistry of plants and animals yielding—per chance—the healing sap or substance for the helpless sick.

PUBLICITY FOR PHARMACEUTICAL EDUCATION.*

BY C. W. BALLARD.

It is difficult to definitely place the responsibility for the decline in prestige of retail pharmacy in the public mind. The replacement of individually owned establishments by those of large organizations concerned primarily with the business aspects, the diminishing number of prescriptions and the excessive number of pharmacies in the larger centers are all undoubtedly factors in creating the situation. But be the causes what they may, the fact remains that pharmacy is further away from a professional status than it was a generation ago. It must also be conceded that other professions and notably dentistry have materially increased in the public estimation. This decline in prestige cannot be charged to a diminishing of the educational standards, for in this respect pharmacy has kept fair pace with other professions. But the public as a whole knows nothing regarding the educational preparation for the practice of pharmacy. Education, both general and professional, is taken for granted in medicine, dentistry and law, perhaps in part because of the professional attitude assumed toward the public by those in these professions. Pharmacy is most often typified in the public mind by the luncheonette type of store where the professional aspects are almost wholly submerged. The task of rehabilitating pharmacy in popular estimation involves education of the public and it cannot hope to succeed without close coöperation on the part of the retail pharmacist. In its relationship to the public this educational project or campaign presents three phases—the individual pharmacist, the press and the pharmacy schools. Concerted action on the part of all three is necessary for a satisfactory culmination and the efforts must be maintained for a considerable length of time.

THE PHARMACIST AND THE PUBLIC.

The individual pharmacist is the most immediate point of contact between the public and pharmacy and he, undoubtedly, can do the most effective work in this educational project. Unfortunately, he is often apathetic in his attitude and is apt to regard professional pharmacy as limited to the compounding of prescriptions. Because of the diminishing number of prescriptions he feels that his claims to professionalism are correspondingly diminished. He readily sees the fallacy of rating the professionalism of a physician by the number of patients he visits, the dentist by the number of teeth he extracts and the lawyer by the number

* Section on Education and Legislation, A. PH. A., Toronto meeting, 1932.

of cases he handles in court, yet he still holds firmly to the number of prescriptions as the only index of his professional status. He realizes, as we all do, that under present conditions a community cannot support more than a few establishments exclusively devoted to compounding. The tradition is so strong that this lack of prescriptions may be the basis for the inferiority complex with which the retail pharmacist is frequently afflicted. While not discounting compounding as a mark of professional status, there are numerous phases of retail pharmacy which can serve the purpose equally well. Display of licenses is admittedly a small matter, but the very fact that the pharmacist is a licensed person at once segregates him in the public mind from the butcher and the grocer. Formerly these licenses were displayed in a conspicuous place, often in the show window, and they were accompanied by college diplomas. I venture to say that at present, licenses and diplomas while legally displayed, are not placed where they will catch the public eye. In the office of the average physician or dentist these evidences of his professional education are usually displayed. Window space is valuable but licenses and diplomas are not bulky. Perhaps they will pass unnoticed but there is also the possibility that, because of their scarcity in the modern store window, they will attract public attention. At any rate there is little likelihood of invidious comparisons being drawn between corporation and individually owned stores in such a feature, for the former seldom employ more registered pharmacists than necessary to comply with legal requirements. The corporation store is primarily a business proposition and the bulk of the employees are salesclerks.

The idea of Pharmacy Week, conceived by the late Robert J. Ruth, has been very generally adopted as a means of conveying the professional aspects of pharmacy to the public. It is noteworthy that Pharmacy Week displays are not featured in the majority of corporation stores. While the Pharmacy Week plan is admirable, its chief defect lies in the fact that one week of such activity throughout the year cannot create a lasting impression. A manufacturer would hardly expect a one-week advertising campaign to produce year-round results, and likewise pharmacy cannot expect too much from a single week's efforts. There is nothing to prevent the pharmacist from more frequently making public display of the professional aspects of pharmacy and this would overcome this lack of continuity.

Much effort has been expended by pharmaceutical organizations in inducing physicians to prescribe more freely and to acquaint them with the official preparations. While this work has not entirely failed of its purpose, the results have been out of all proportion to the efforts. The physician, with his more ready approach to his colleagues, can accomplish more than the pharmacist in inducing medical men to prescribe more freely. The fact that he has no pecuniary interest in the matter is a decided advantage. Surely, each pharmacist is sufficiently familiar with at least one physician to present the case of official preparations and prescriptions as against proprietaries and counter calls. The element of personal contact is strong and although it requires diplomacy to gain the confidence of the physician, it can be done. I personally know of several instances where pharmacists are constantly consulted by medical men in prescription construction. The pharmacist of to-day generally has a broader knowledge of the articles of the *materia medica* than the physician and it but remains for him to show the latter what he knows about medicinal articles. In such relationships between pharmacist and physician it is quite

possible for the former to disseminate information relative to the modern pharmaceutical curriculum. I find that medical men have but little knowledge of the requirements for the practice of pharmacy and their respect for it increases when they are so informed.

Personality, attitude toward customers, dress and manner of conversation all play a part in instilling respect for pharmacy. Some of these are the characteristics which we term culture. Perhaps the inclusion of academic studies in the pharmacy curriculum may give our students these attributes but there is considerable doubt about its accomplishment in this manner. The so-called professional manner or attitude is not a subject of the medical or dental curriculum nor can it be in pharmacy. It is founded on the individual attitude toward one's calling, revolves about the respect he accords it and this in turn begets respect from the public. Our reaction toward the physician who appeared before his patients in shirt sleeves and without a collar would probably be decidedly unfavorable, yet this is the regular dress of some pharmacists in their stores. This type of pharmacist evidently thinks that professional status is not attainable because he is called upon more often for merchandise than for service. But modern merchandising stresses service and the pharmacist is advantageously situated to introduce this factor of service in a commercial transaction. A word of information regarding a product or a query as to the purchaser's preference will often pave the way for the pharmacist to display his professional knowledge.

THE PHARMACIST AND THE PRESS.

Pharmacists are generally poor advertisers of their activities. In the average small city newspaper we frequently see accounts of the meetings of local medical and dental societies and but rarely any notice of a pharmaceutical organization, if indeed one exists. My friends engaged in organization work are constantly bewailing the fact that their fellow pharmacists can with difficulty be induced to join the State associations and absolutely balk at local organizations. Reasons for this lack of *esprit de corps* include suspicion that the other fellow will benefit more from the association than they will, direct and personal antagonism to others in the same locality, a general feeling of "what's the use" and the tendency to be disappointed if direct personal results do not immediately follow their signing an application for membership. The number of names on the roster of any State pharmaceutical association, as compared with the number of practicing pharmacists in that state, illustrates the situation only too clearly.

Reporters are not, as a rule, assigned to cover local medical or dental meetings, but these organizations furnish matter for publication and it has sufficient news-appeal to be promptly printed. I can hardly believe that among the membership of a pharmaceutical body there is no person to undertake publicity work in a similar manner. In the smaller communities the press will usually give space to even the simplest notice, especially if it contains the names of business or professional men. Newspapers in the larger cities must necessarily limit the material for publication, but even here it is often possible to secure space if one can use matter of general public interest as the main theme and work in items of purely pharmaceutical import. Aside from newspaper publicity there remains the possibility of impressing the public as to the differences between the pharmacist and

the merchant by means of printed matter for distribution among his patrons. A typical folder of this sort issued by "Pharmacists' Educational Service," deals with the family medicine chest, names several U. S. P. and N. F. household remedies and concludes by calling attention in simple language to the qualifications demanded for the practice of pharmacy. The individual pharmacist might find it difficult to publish a series of this sort but an established organization could put forth this literature just as readily as they have supplied physicians with printed matter dealing with official preparations.

THE PHARMACY SCHOOL AND THE PUBLIC.

The last point of contact between the public and pharmacy is the pharmacy school, but unfortunately this contact, like that of pharmacy week, cannot be so readily and constantly maintained. On the other hand the schools are providing educational service and are therefore not directly financially interested. Teaching has always been regarded as a profession by the public, therefore the tie-up between pharmaceutical education and retail pharmacy may be more compelling than other means even though it be less constant. Nor need this work of education undertaken by pharmacy schools be entirely restricted to the general public for, and I think my teaching confrères will agree, members of other professions and especially other professional schools are frequently just as ignorant of the pharmacy school curriculum as the layman. At the very beginning it must be understood that a school in undertaking this work must devote its energies toward elevating pharmacy in the public eye. The public quickly senses any effort to commercialize this contact and an undue stressing of the desirability of pharmacy as a profession may easily negative the entire project, especially as regards press publicity.

The most feasible and perhaps the most impressive method for a pharmacy school to secure contact with the public is by means of an exhibit featuring the varied educational activities of the pharmacy curriculum. In planning an exhibit while each department or division can best select and arrange the features pertaining to its particular field, there must be a supervising head to coordinate departmental efforts and see that the entire project adequately represents pharmaceutical education. Lack of supervision may readily result in duplication, one-sided displays and the objectionable tendency to exhibit so much material that the visitor is overwhelmed. Exceedingly technical items or operations should not be stressed and the displays should possess a popular appeal. Apparatus, especially if it be in actual use as in a demonstration, always catches the public eye. Necessarily, explanatory placards or labels in nontechnical language should be liberally used. But a mere labeling of the exhibited material will not accomplish the full purpose. If the visitors are really interested they will ask questions and there should be a capable member of the staff present to give explanations. A greater interest can be aroused by having a staff member accompany a group through a given section of the exhibit, explaining the items displayed and inviting queries.

The exhibit project has been tried in but few of the pharmacy schools of the country and written reports of such activities are scarce. Last June the College of Pharmacy, Columbia University, held an exhibit of this sort and I am reporting the details of, and reactions to, this exhibit in the hope that data from other sources may be forthcoming. Plans for the project were considered for several months and

the work was placed in charge of a staff committee upon which were representatives from the three major divisions—Chemistry, Pharmacy and Materia Medica. Each of these divisions was given a free hand in deciding upon the details of their own exhibits. The committee supervised the whole so as to secure a degree of uniformity, prevent duplication and check the pardonable, but nevertheless objectionable, tendency of a given department to overload their particular section and thus monopolize attention. Owing to this exhibit covering all six floors of the College building with eight large laboratories and a library, all used for the purpose, it was necessary to organize the teaching staff and the laboratory helpers so that visitors could be systematically shown through. A registration book was kept for the signatures of visitors and printed catalogs of the exhibit were distributed at the entrance. The catalog was descriptive of the type of exhibits displayed on each floor and by being so arranged, a visitor with limited time or interests could make his own selection and be directed accordingly. Every effort was made to have those attending spend at least a short time on each floor so that all phases of pharmacy might be seen.

A specific description of each part of this exhibit would be impossible within reasonable time limits, but an idea of the general plan and the types of materials and apparatus shown can be gained by reference to the following excerpts from the printed catalog.

Main Floor

Library.—Rare 15th century pharmaceutical books and utensils; special reference books and current journals in the fields of pharmacy, chemistry, materia medica and allied subjects.

A Modern Model Pharmacy.—Prescription department; ethical specialties; biologicals.

Dispensing Laboratory.—The compounding of prescriptions: pills, capsules, troches, tablet triturates, powders, ointments, solutions, emulsions, etc.; what goes into the prescription.

Sub-Level—The Pharmacy of 1829.—A model pharmacy of one century ago with original equipment and materials.

Second Floor

Physics Laboratory.—Photo-electric cells; radio-wave apparatus and tubes; X-ray and cathode ray demonstrations; radio-activity exhibit; spectroscopes; spectrophotometer; color analysis; polariscopes; refractometers; instruments for the analysis of oils; electrometric determination of pH ; conductivity apparatus and exhibits in mechanics, wave motion and heat.

Fourth Floor

Materia Medica Laboratory.—Displays of fresh and dried crude drugs; microscopic views of powdered drugs; living drug plants in terraria; glandular products and biologicals; living animals used in biological assays; models, charts, X-ray pictures and actual specimens of human organs; cryptogamic specimens including interesting fungi; drug and spice maps of the world; microanalysis of foods; evolution of microscopes and models from 1788 to date; methods for sectioning and the preparation of slides; pharmaceutical sundries and first-aid equipment; poisons and their antidotes.

Bacteriological Laboratory.—Sterilizers and autoclaves; cultures; microscopic views of pathogenic bacteria; vaccines and serums; evaluation of antiseptics; dark field illumination; photomicrographic equipment; parasitology exhibit; chemical analysis with the microscope; apparatus for the chemical and microscopic examination of blood and urine.

Fifth Floor

Pharmaceutical Laboratory.—Apparatus used in pharmaceutical processes; demonstrations of crystallization, extraction, percolation, sublimation; manufacture of scale salts, solutions, tinctures, mulls, medicated gauzes, U. S. Pharmacopoeial and National Formulary preparations.

Pharmaceutical Manufacturing Laboratory.—Manufacture of organic medicinal chemicals showing processes of steam and vacuum distillation, reflux condensation and extraction; display of natural and synthetic perfume materials together with those used in cosmetic manufacture; exhibit showing the use of ultraviolet rays in chemical and pharmaceutical analysis.

Sixth Floor

Chemical Laboratory (Organic).—Medicinal chemicals derived from coal tar, petroleum, wood, plants, animal tissues; newer synthetic remedies; special apparatus used in quantitative organic analysis; apparatus used in the analysis of water and foods with demonstrations; apparatus and methods used in the testing of medicinal substances as oils, alcohol, alkaloids and official preparations for identity and purity.

Chemical Laboratory (Inorganic).—Chemical map of the United States; derivation of inorganic medicinal chemicals; processes and apparatus used in qualitative analysis and in volumetric, gravimetric and gasometric determinations.

Notices of the exhibit were distributed to the pharmaceutical, medical and dental press, to various educational institutions and the general public. During the five days of the exhibit well over 1300 persons registered in attendance, excluding duplications occurring through visitors returning with others. Among those attending we find physicians, dentists, nurses, teachers, science clubs, nature study groups, chiropractors and students at various schools, both academic and professional, and pharmacists. An interesting development of the project is the request for talks or lectures before groups interested in some particular phase. Such groups are perhaps not interested in pharmacy but the very fact that they invite members of a pharmacy staff to address them contributes something toward raising pharmacy in their estimation.

The question may well be asked as to what an exhibit project does for pharmaceutical education and ultimately for pharmacy. Perhaps the most frequently repeated phrase heard by members of the staff during the exhibit was, "does the druggist have to study and know all this?" These ten words adequately express the ignorance, perhaps pardonable in view of the appearance of the modern drug store, that prevails among persons in various walks of life, regarding pharmacy and the pharmacist. Their very utterance betokens a more estimable opinion of the pharmacist than they previously possessed. A continuation of the work by this School and its adoption by others may well be a factor in the restoration of prestige to pharmacy and a greater regard for the pharmacist. The professional status of pharmacy has not been lost over night and neither can it be so regained by legislation or otherwise. The pharmacist must act and regard himself as a professional man before he can induce the public to so regard him.

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1932 should give us some hint of the way to succeed and speak with authority. In a general way it has some false stars, slips, failures and regrets. May it be asked "What do the coming days and years hold for us, and wherein is success and whereby can it be attained?" "The same year that brought us many joys, and alas, many devastating sorrows and a host of enlarging experiences, must have a last gift for us—a garland for the ashes of regret."